

THE PHILIPPINE JOURNAL OF SCIENCE

VOL. 69

JUNE, 1939

No. 2

NEUROPTEROID INSECTS FROM THE PHILIPPINES

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ONE PLATE

Prof. L. B. Uichanco, of the University of the Philippines, sent me a number of neuropteroids for determination. Many were collected by various students, and a considerable number by Professor Uichanco and by Dr. C. S. Banks; a few were from the late Prof. C. F. Baker. I have added descriptions of a few new species from the Baker and Clagg material that had not been studied. Much of the material I received from Professor Baker had no dates of capture, so I have given the records with dates from Professor Uichanco's material, in which nearly everything was dated, at least to the month.

EMBIIDÆ

OLIGOTOMA SAUNDERSI Westwood.

NEGROS, Occidental Negros, La Carlota Central, March, 1930 (*L. B. Uichanco*).

OLIGOTOMA MASI Navas.

LUZON, Laguna Province, Los Baños, January 3, 1930 (*M. Plurad*), March 1, 1931 (*D. Tabije*), November 11, 1931 (*R. Base*).

PSOCIDÆ

PSOCUS BAKERI Banks.

LUZON, Laguna Province, Los Baños, January 21, 1935 (*G. A. Pangga*); Pili River, Mount Maquiling, altitude 80 meters,

February 19, 1924 (*D. Sulit*); Ilocos Norte, Paoay, December 28, 1931 (*F. Villanueva*).

PSOCUS OMISSUS sp. nov.

Similar to *P. lemniscatus*, apical marks similar, subbasal band wanting; only a black spot over basal part of radial sector, a black spot across anal cell near end; median cell only a little longer than broad, third median scarcely two and one-half times as long as broad, third median cell about as in *P. lemniscatus*; lower branch of radial sector separating from upper in a broad curve, which is here hyaline; lower end of median cell pale. Head, notum, and eyes as in *P. rizali*; hairs on male antennæ six to eight times the width of a joint.

MINDANAO, Mount Apo, Tia Ridge, altitude 6,000 feet, September (*Clagg*); Subulan River, October 11, altitude 2,000 feet (*Clagg*). Smaller specimens from Luzon (*Clagg*) and Samar (*Baker*). Two males lack the brown color in the third median cell. Type, M. C. Z. No. 22977.

PSOCUS RIZALI sp. nov.

In general similar to *P. lemniscatus* Enderlein, and formerly identified by me as that species. Differs from *lemniscatus* in having a nearly square median cell, in the much broader third median cell, and in a much more elongate second median cell. The subbasal band is broader than in *lemniscatus*, and there is a curved dark mark in the radial cell; both sexes marked the same. Head almost wholly pale, nasus bulging out in front; hairs of antennæ in female only a little longer than width of joint, in male fully four or five times as long; eyes of male not enlarged; notum shiny brown to nearly black, sutures scarcely marked with pale, subbasal band on hind margin reaching to base of wing (in *P. viscayana* broken long before base).

Lower branch of radial sector separating from upper in a broad curve, and here hyaline white; lower end of median cell also hyaline.

Length of forewing, female, 7 millimeters; male, 5.

Various specimens from Mount Maquiling, Luzon, and from Samar (21077), both collected by Baker. Type, M. C. Z. No. 22976.

PSOCUS ILLOTUS sp. nov.

Head dull gray, darker on clypeus and nasus; notum brown, sutures pale. Forewings with apical markings much as in *Psocus murudensis* Karny, but more extended. Stigma dark,

a spot behind angle of stigma extending across radial area and down on posterior side of areola postica to margin, two other spots in radial area, the one at tip pale in the middle, a spot at end of upper branch of radial sector, each of posterior cells margined along sides with dark, second cell with a band across a little below medius, also a spot at nodus and basal part of radial sector. Broad dark band over basal part of wing in *P. murudensis* wholly lacking in this species.

Wing rather slender, median cell much longer than broad, areola postica with a short top on medius (very long in *murudensis*), branches of radial sector separating in an acute angle. Hair on male antenna fully three to four times as long as width of a joint.

Length of forewing, 3.5 millimeters.

LUZON, Mountain Province, Benguet Subprovince, Baguio, July 10 (*McCoy*). Type, M. C. Z. No. 22978.

STENOPSOCUS JOCOSUS sp. nov.

Head pale, nasus and clypeus slightly brown in the middle, a black band from eye to eye through ocelli, antennæ (female) very pale, scarcely at all marked. Legs pale; notum with three large shiny black spots. Forewings with elongate stigma hyaline, an even broad black line along posterior margin of stigma, crossvein behind longer than width of stigma; lower side of median cell about twice as long as crossvein to medius, second branch of medius about parallel to posterior side of areola postica; separation of radial sector and medius hyaline for a short distance. Veins with few hairs, each about its length from next, hairs around outer margin few, very short, inconspicuous. Eyes (female) two diameters apart.

A male, which may belong here, has the eyes a little more than one diameter apart, the antennæ black, the stigma yellowish, and tips of femora and tibiæ dark.

Length of forewing, 4.2 millimeters.

From Basilan, and Zamboanga Province, Mindanao (*Baker*); male from Calian, Davao Province, Mindanao, July 11 (*Clagg*). Type, M. C. Z. No. 22979.

CÆCILIOUS MUGGENBERGI Enderlein.

Nathanopsocus fuscolineatus C. S. Banks is a synonym; accession No. 18338.

AMPHIPSOCUS UNITUS Banks.

LUZON, Laguna Province, Los Baños, June 17; December 26, 1925 (*S. S. Gonzales*).

TAGALOPSOCUS HYALINUS Banks.

LUZON, Laguna Province, Mount Banahao (Kinabuhayan), May 21, 1933 (*V. J. Madrid*).

DYPSOCUS APICATUS Banks.

LUZON, Laguna Province, Los Baños, July 7, 1923 (*S. M. Cendaña*), June 2, 1918 (*C. S. Banks*).

HEMIPSOCUS ROSEUS Hagen.

LUZON, Laguna Province, Los Baños, June 15, 1932 (*S. R. Capco*).

LOPHOPTERYGELLA CAMELINA Enderlein.

LUZON, Laguna Province, Los Baños, September 27, 1915 (*C. S. Banks*); Laguna Province, Calauang, September 5, 1922 (*L. B. Uichanco*).

PERLIDÆ**NEOPERLA RECTA Banks.**

LUZON, Laguna Province, Mount Maquiling, August 28, 1925 (*H. Protacio*); Los Baños, November 20, 1915 (*C. S. Banks*), February 15, 1931 (*Isabelo Monje*), October 12, 1929 (*F. Villanueva*), August 25, 1923 (*J. R. Bogayong*), November 19, 1930 (*E. Cada*), August 4, 1929 (*V. Villafranca*), June 23, 1925 (*U. Villar*).

NEOPERLA PALLICORNIS Banks.

LUZON, Laguna Province, Los Baños, January 3, 1932 (*M. Plurad*), February 3, 1925 (*F. Goseco*).

NEOPERLA VISCAYANA Banks.

LUZON, Laguna Province, Los Baños, March 1, 1931 (*D. Tabije*).

NEOPERLA OBLIQUA Banks.

LUZON, Laguna Province, Los Baños, October 29, 1916 (*F. B. Padolina*), January 11, 1917 (*T. Nisce*), January 8, 1917 (*C. R. Paulinan*), January 16, 1917 (*C. S. Banks*), June 1, 1914 (*E. Ejercito*), August 6, 1923 (*E. M. Sibál*), August 23, 1931 (*G. B. Viado*), March 1, 1931 (*D. Tabije*), July 21, 1927 (*P. Ungos*).

PHANOPERLA CLARISSA Banks.

LUZON, Laguna Province, Los Baños, January 26 and 29, 1915 (*C. S. Banks*), February 10, 1932 (*M. Plurad*), June 15, 1915 (*C. S. Banks*), August 8, 1923 (*P. V. Maclang*), September 18, 1929 (*S. M. Cendaña*), February 20, 1917 (*G. D. Cazeñas*), August 5, 1923 (*G. Guanzon*).

MINDANAO, Dansalan, altitude 300 feet, April 27, 1936 (*L. B. Uichanco*).

PHANOPERLA CONSIMILIS Banks.

LUZON, Laguna Province, Los Baños, June 1, 1915 (C. S. Banks), August 5, 1923 (G. Guanzon).

PHANOPERLA BAKERI Banks.

LUZON, Laguna Province, Los Baños, July 17, 1927 (P. H. Viray).

NOTHOCHRYSIDÆ (CHRY SOPIDÆ)**NOBILENUS BELLULUS** Banks.

LUZON, Laguna Province, Los Baños, May 8, 1923 (L. B. Uichanco), July 10, 1923 (F. S. Manipol), December 26, 1930 (M. Plurad).

NOTHOCHRYSA EVANESCENS McLachlan.

LUZON, Laguna Province, Los Baños, July 11, 1930 (C. Bagalso), August 25, 1929, entom. student, September 9, 1915 (C. S. Banks), October 30, 1930 (E. Lantín and V. Juan); Mount Maquilín, altitude 285 meters, August 21, 1932 (V. Asunción).

NOTHOCHRYSA ÆQUALIS Walker.

LUZON, Laguna Province, Los Baños, June 29, 1932 (A. Y. Coronel), July 9, 1922 (S. Lantican), July 9, 1927 (H. T. Ramos), October 15, 1928 (E. A. Lanuza).

ANKYLOPTERYX TRIPUNCTATA Girard.

LUZON, Laguna Province, Los Baños, August 19, 1926 (Mrs. I. R. Cendaña).

ANKYLOPTERYX BORNEENSIS Weele.

LUZON, Laguna Province, Los Baños, March, 1930 (J. Abrenica), December 23, 1930 (E. Dumaguín).

ANKYLOPTERYX NERVOSA Navas.

LUZON, Laguna Province, Los Baños, July 8.

CHRY SOPA ISOLATA Banks.

LUZON, Laguna Province, Los Baños, April 22, 1930 (G. B. Viado), August 15, 1915 (H. Cuzner).

CHRY SOPA MOROTA Banks.

LUZON, Laguna Province, Los Baños, May 21, 1923 (S. M. Cendaña).

CHRY SOPA MAKILINGI Banks.

LUZON, Laguna Province, Los Baños, April 21, 1930 (V. J. Madrid), Tolim, May 3.

CHRYSOPA ILOTA Banks.

LUZON, Laguna Province, Los Baños, July 7, 1921 (*M. Jaramila*).

CHRYSOPA TAGALICA Banks.

LUZON, Mount Banahao, crater, April 24, 1936 (*V. J. Madrid*).

CHRYSOPA NIGRIBASIS Banks.

LUZON, Laguna Province, Los Baños, March 15, 1915 (*C. S. Banks*).

CHRYSOPA (BORNIA) LUZONICA sp. nov.

Head pale yellowish, with a slight tint of reddish on vertex, no dark on cheeks; palpi pale, unmarked; antennæ pale; pronotum also pale, in one specimen with a faint median reddish streak, and more faint back on mesonotum; abdomen and legs pale.

Wings hyaline; venation pale, gradates brown, some radial crossveins and a few veins toward base of wing faintly brownish. In hind wings veins wholly pale.

Antennæ about two-thirds length of forewings; pronotum longer than broad behind, somewhat tapering forward. Wings rather slender, tips almost acute. In forewings radial sector but little curved; three series of gradates, eight in first, four or five in intermediate, eight in outer row; divisory veinlet ending just beyond crossvein; seven cubitals beyond it; twelve radial crossveins. In hind wing six inner and eight outer gradates, inner row rather nearer to radial sector than to outer row.

Length of forewing, 14.5 millimeters; width, 5.

LUZON, Laguna Province, Mount Banahao, in crater, April 22; altitude 974 meters, April 21 (*V. J. Madrid and G. T. Lim*).

Types in the College of Agriculture, University of the Philippines Collection, and M. C. Z. No. 23333.

OSMYLIDÆ**SPILOSMYLUS MODESTUS Gerstaecker.**

LUZON, Laguna Province, Los Baños, June 15, 1932 (*A. Y. Coronel*).

MICROMIDÆ (HEMEROBIIDÆ)**ARCHÆOMICROMUS PUSILLUS Gerstaecker.**

LUZON, Laguna Province, Los Baños, July 10, 1923 (*C. Crucillo*), September 15, January 5. MINDANAO, Lanao Province, Dapao Lake, Ganassi, altitude 3,000 feet, April 28, 1936 (*L. B. Uichanco*).

ARCHÆOMICROMUS IGOROTUS Banks.

LUZON, Laguna Province, February 17, 1923 (*G. B. Ingalla*).

MYRMELEONIDÆ

MYRMELEON CELEBESENSIS McLachan.

LUZON, Laguna Province, Los Baños, August 1, 1923 (*J. Barsana*), September 8, 1924 (*C. G. Manuel*), February 22, 1932 (*A. Palma*).

MYRMELEON ANGUSTIPENNIS Banks.

LUZON, Laguna Province, Los Baños, January 20, 1923 (*S. J. Aquino*), July 2, 1917 (*C. S. Banks*), July 4, 1923 (*L. Salazar*), November 1, 1931 (*M. Cera*), December 27, 1924 (*D. Suerte*).

HAGENOMYIA SAGAX Walker.

LUZON, Laguna Province, Los Baños, July 24 1918 (*C. S. Banks*).

DISTOLEON CLEONICE Banks.

LUZON, Laguna Province, Los Baños, August, 1926 (*C. Sundarasinha*), July 24, 1932 (*A. Barroquillo*), June 2.

NUGLERUS INSIGNIS sp. nov.

Head pale, a brown line below and one above antennæ; vertex with a transverse brown mark on each side, narrowly connected in the middle; palpi pale; antennæ pale, tips a little darker. Pronotum pale, on posterior part lateral margins broadly brown, on anterior part, sides and front margin faintly dark; long black hairs in front and some behind groove, shorter, curved; paler hairs on sides; mesonotum with brown spots, usually connected; metanotum more brown, tip of metascutellum shiny dark brown; on mesonotum very long erect black hairs, mostly in two groups on each side. Legs pale, base and tips of tibiæ darker, front coxæ long, with a broad, oblique, brown mark on outer side; spurs slender, curved near tips, equal to two joints; basal tarsal joint a little longer than apical joint, claws fully one-half of last joint; pleura with a brown stripe. Wings shaped as in other species (*scalaris* and *maculata*), tip of forewing hardly as acute as in *maculata*; a large bulla near tip of each pair.

Forewing with apical bulla brown, a smaller brown cloud over rhagma, and one on hind margin at end of anal vein. Between subcosta and radius thirteen brown spots (as usual), between each pair two or three brown spots from subcosta, not reaching across; in mediocubital area nine crossveins before and fourteen beyond stigma, these crossveins brown and more or

less bordered with brown; venation brown, in cubital area and anal area more pale; subcosta, radius, and cubitus interrupted with pale; hairs on veins moderately long. On hind wing apical bulla dark brown, a faint mark over rhexema; venation mostly brownish, paler in middle of apical half behind. Venation much as in other species; costals toward stigma forked; eight radial sectors; four crossveins before radial sector in forewing, two in hind wing.

Length of forewing, 28 milimeters; hind wing, 30.

LUZON, Laguna Province, Mount Maquiling (*C. F. Baker*). Type M. C. Z. No. 23020.

Readily separated from *scalaris* by more numerous marked veins in mediocubital area; from *maculata* (*Bofia*) separated by lack of middle dark spot near tip, by pale front (black in *maculata*), by single stripe on pleura (two parallel lines in *maculata*); femora pale above (with dark line in *maculata*).

The genus is peculiar in that there is no branch of the cubitus in the hind wing that can be identified as the cubital fork, the anal vein apparently continuing as a zigzag line; this post-cubital area extremely narrow, mostly 1-celled.

ASCALAPHIDÆ

SUBPALASCA PRINCEPS Gerstaecker.

LUZON, Laguna Province, Mount Maquiling, April 16, 1930 (*V. J. Madrid*), June 15, 1931 (*Emilio Ocampo*).

MANTISPIDÆ

EUCLIMACIA GUERINI Westwood.

LUZON, Laguna Province, Los Baños, February 10, 1929 (*L. B. Uichanco*); Mount Maquiling, July 22, 1925 (*Entomology student*).

EUMANTISPA STRENUA Gerstaecker.

LUZON, Nueva Ecija Province, Bongabon, December 26, 1934 (*Angel Huertas*).

CLIMACIELLA LUZONICA Weele.

LUZON, Laguna Province, Los Baños, August 6, 1923 (*E. M. Sibál*).

MANTISPA LUZONENSIS Navas.

LUZON, Laguna Province, Los Baños, October 27, 1933 (*T. Araneta*); Mount Maquiling, altitude 92 meters, June 16, 1932 (*V. J. Madrid*).

MANTISPA ENDERLEINI Banks.

LUZON, Laguna Province, Los Baños, June 11, 1917 (*C. S. Banks*), October 27, 1933 (*T. Araneta*).

AUSTROMANTISPA MANCA Gerstaecker.

LUZON, Laguna Province, Los Baños, April 9, 1926 (C. G. Manuel), June 2, 1923 (S. M. Cendaña).

RHYACOPHILIDÆ**AGAPETUS CURVIDENS** Ulmer.

MINDORO, Mindoro Province, April 11 and 12, 1923 (L. B. Uichanco).

HYDROPSYCHIDÆ**VIGARRHA TIBIALIS** Navas.

LUZON, Laguna Province, Los Baños, March 17, 1915, many specimens (C. S. Banks), August, 1927 (L. B. Uichanco). NEGROS, Occidental Negros Province, La Carlota Central, March, 1930 (L. B. Uichanco). MINDANAO, Surigao Province, April 20, 1936 (L. B. Uichanco).

DIPSEUDOPSIS BAKERI Banks.

LUZON, Laguna Province, Los Baños, very common, every month of year, February 25, 1924 (A. Damian), June 14, 1915 (C. S. Banks), July 12, 13, and 19, 1922 (L. B. Uichanco), July 15, 1915 (C. S. Banks), July 22, 1922 (S. Pagcaliuag), September 5, 1915 (G. C. Zaballa), September 30, 1915 (J. Trinidad), October 4, 1930 (A. Siason), October 8, 1931 (M. Legaspi), December 3, 1930 (C. Valdez).

DIPSEUDOPSIS NERVOSA Brauer.

LUZON, Laguna Province, Los Baños, April 8, 1917 (L. G. Mendoza), July 2, 1923 (G. B. Ingalla), November 5, 1924 (A. Muyargas).

DIPSEUDOPSIS LUCTUOSA Banks.

MINDANAO, Agusan Province, Jabonga, Mayogda, April 21, 1936 (L. B. Uichanco). LUZON, Laguna Province, Los Baños, August 24, 1915 (F. W. Ashton), November 14, 1924 (M. Tadler), December 16, 1923 (E. Quisumbing).

POLYPLECTROPUS ULMERI Banks.

LUZON, Laguna Province, Los Baños, March 17, 1915 (C. S. Banks), May 10, 1915 (C. S. Banks), June 28, 1922 (L. B. Uichanco).

DIPLECTRONA FASCIATA Ulmer.

LUZON, Laguna Province, Los Baños, April 15, 1923 (G. Lacuesta).

DIPLECTRONA COSTALIS Banks.

LUZON, Laguna Province, Los Baños, March 17, 1915 (C. S. Banks), July 11, 1923 (T. Reveche).

CHEUMATOPSYCHE MASIA Navas.

LUZON, Laguna Province, Los Baños, July 13, 1925 (*F. Reveche*), August 12, 1923 (*J. M. de Vera*), September 8, 1917 (*C. S. Banks*), September 20, 1925 (*G. C. Bermejo*), October 191— (no other data). NEGROS, Occidental Negros, La Carlota Central, March, 1930 (*L. B. Uichanco*).

ECNOMUS TAGALENSIS Banks.

This neuropteroid was described as a *Nyctophylax*, and *Ecnomus viganus* Navas is the same species. It is fairly common in Luzon. Superior appendages long, cylindrical, subparallel, with stout, short bristles on inner side; inferior appendages a little more than one-half as long as superior, broadened toward base, toward tip incurved and pointed.

Ulmer has based an identification of a different species on a drawing sent to Navas. But Navas in his original description says that the superior appendages are long, cylindrical (while the figure of Ulmer does not show such an appendage), that the inferior appendages are also elongate, dilated near the base, and toward tip plainly attenuate and clawlike (Ulmer's figure shows a short, broad appendage, broad at tip, not at all attenuate).

I propose for the species Ulmer called *E. viganus* the name *Ecnomus morotus*. Mindanao.

ECNOMUS RIZALI Banks.

LUZON, Laguna Province, Los Baños, May 21, 1923 (*S. M. Cendaña*.)

POLYMORPHANISUS SEMPERI Brauer.

LUZON, Laguna Province, Mount Maquiling, altitude 600 meters, April 19, 1937 (*V. J. Madrid*); Los Baños, October 30, 191— (*G. D. Cazenias*).

GUNUNGIELLA MARGINALIS sp. nov.

Hair on head and thorax gray; antennæ pale, darker toward tip, more or less annulate with dark; legs and spurs pale. Forewings in appearance whitish through middle, margined with deep black fringe along costa and outer border, behind with gray fringe. Middle of wing with fine yellowish and black hair, just before outer margin a band of golden hair, and a black fringe around outer margin, elsewhere gray. Head with large, high, posterior warts, ocelli and palpi as in other species. Wings slenderer than in *G. reducta* or *G. nietneri*; thus lower side of fork five hardly one-fourth as long as upper side; in hind wings noticeably more slender and more pointed; fork five larger, fork two longer.

Length of forewing, 4 millimeters.

MINDANAO, Davao Province, Mount Mayo, January 26, 1929, 4,000 to 5,000 feet (C. S. Clagg).

Type, M. C. Z. No. 23195.

PSYCHOMYIELLA ULMERI sp. nov.

Head with pale grayish hair, basal joint of antennæ dark, beyond pale, faintly annulate with dark, antenna from middle to tip dark. Front of thorax with pale-gray hair; legs and spurs pale; abdomen dark. Forewings gray, with black and golden hair, fringe near tip of wing very dark, veins here almost black, fringe behind pale, on costa almost black; hind wings gray, with long gray fringe, that on apical half of costa also long and more yellowish. Venation much as in other species; fork three slenderer, fork four very large, fork five plainly shorter than four, lower side not one-half as long as upper side. Hind wings much as in *P. minima*, very slender, apical half (beyond projection) more than twice as long as width at projection; upper side of fork five fully three times as long as lower. In female tip of ovipositor forked; in male lower appendages long, nearly straight.

Length of forewing, 4.2 to 4.5 millimeters.

MINDANAO, Galog River, Mount Apo, altitude 6,000 feet, October 8 and 19, November 4 and 5; Mainit River, altitude 6,000 feet, September 22 and 23, 1929. All collected by C. S. Clagg. Type, M. C. Z. No. 23194.

PADUNIELLA ANGUSTA sp. nov.

Head and thorax with gray hair, some black on sides, antennæ pale, faintly annulate with dark; legs pale, spurs pale; abdomen black. Forewings gray, with some dark and much golden hair, rather darker towards tip; fringe very long, gray, but toward tip nearly black; hind wings pale gray, with very long gray fringes. Forewings rather more slender than in *semarangensis* or *borneensis*; fork three shorter, discal cell shorter. In hind wing base fairly broad, two clear areas broader than in other species, and I cannot find any vein parallel to the base of fork five, but this vein is rather heavy. In the clear costal space a spur vein, much as in *P. africana*. Male appendages yellowish, two long, slender, slightly curved lower pieces, above with a rather broad superior plate, between a pair of slender pieces swollen toward tips; from above projects below a broad, recurved, pointed process.

Length of forewing, female 2.8 millimeters; male, 2.6.

MINDORO, Mindoro Province, San Jose, April 11, 1923 (*L. B. Uichanco*). Type, M. C. Z. No. 23196; paratypes in the College of Agriculture, University of the Philippines.

CALAMOCERATIDÆ

ANISOCENTROPUS MAGNIFICUS Ulmer.

LUZON, Laguna Province, Los Baños, February 26, 1931 (*Gironello*), May 10, 1926 (*S. C. Cendaña*), August 5, 1915 (*L. B. Uichanco*). BASILAN, May 6, 1936 (*Uichanco*).

LEPTOCERIDÆ

NOTANATOLICA GILOENSIS McLachlan.

LUZON, Laguna Province, Los Baños, many specimens, in every month of the year, but few in August and December, February 10, 1931 (*A. Costes*), April 23, 1928 (*L. B. Uichanco*), June 18 and 23, 1915 (*C. S. Banks*), July 20, 1915 (*C. S. Banks*), July 30, 1922 (*P. Masibay*), August 24, 1915 (*F. W. Ashton*), September 22, 1915 (*C. S. Banks*), October 25, 1915 (*C. S. Banks*), November 14, 1930 (*P. Elayda and R. Denoga*), February 24 (*C. T. Buligan*).

NOTANATOLICA GRISEA Banks.

LUZON, Laguna Province, Los Baños, January 1, 1915 (*J. P. Esguerra*), March 1, 1931 (*D. Tabije*), July 20, 1922 (*A. Gordon*), September 2, 1928 (*A. Severino*), December 16, 1925 (*L. B. Uichanco*).

CECETIS APICIPENNIS Banks.

LUZON, Laguna Province, Los Baños, August 15, 1915 (*C. S. Banks*), September 6, 23, and 27, 1915 (*C. S. Banks*).

SETODES SPINOSELLA Ulmer.

NEGROS, Occidental Negros Province, La Carlota Central, March, 1930 (*L. B. Uichanco*).

CECETINELLA CONFLUENS Ulmer.

LUZON, Laguna Province, Los Baños, October 25, 1922 (*L. B. Uichanco*).

SERICOSTOMATIDÆ

GCERA LONGISPINA Ulmer.

LUZON, Laguna Province, Los Baños, December 15, October 17, 1915 (*C. S. Banks*).

GCERA TAGALICA Banks.

LUZON, Laguna Province, Los Baños, September 20, June 29, 1915 (*C. S. Banks*).

ILLUSTRATION

PLATE 1

- FIG. 1. *Psocus rizali* sp. nov.; forewing.
2. *Psocus illotus* sp. nov.; forewing.
3. *Paduniella angusta* sp. nov.; male genitalia, side.
4. *Gunungiella marginalis* sp. nov.; hind wing.
5. *Paduniella angusta* sp. nov.; fore and hind wings.
6. *Paduniella angusta* sp. nov.; male genitalia, below.
7. *Ecnomus tagalensis* sp. nov.; male genitalia, above and below.
8. *Psychomyiella ulmeri* sp. nov.; hind wing and part of forewing.
9. *Stenopsocus jocosus* sp. nov.; forewing.
10. *Psychomyiella ulmeri* sp. nov.; male genitalia, side.

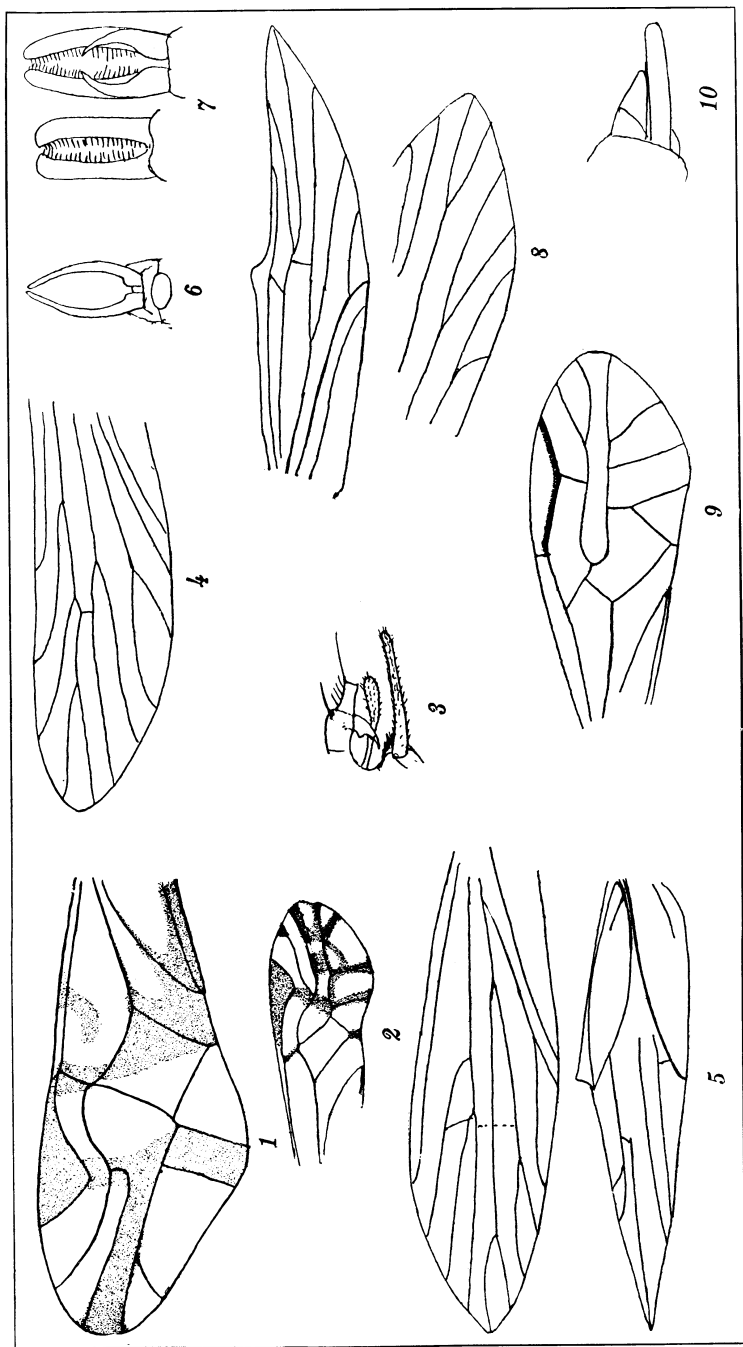


PLATE 1.